Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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1998 Biennial Regulatory Review--	)	WT Docket No. 98-205
Spectrum Aggregation Limits for	)	
Wireless Telecommunications Carriers	)	

REPLY COMMENTS OF BELL ATLANTIC MOBILE, INC.

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SUMMARY

The initial comments filed in this proceeding confirm that the Commission not only should repeal the CMRS spectrum cap as a matter of policy, but must repeal it as a matter of law. The cap, like any regulation of CMRS, cannot lawfully be maintained without concrete evidence that it is necessary to achieve specific public policy goals, and that it is the narrowest means necessary to do so. The spectrum cap does not come close to meeting these prerequisites.

The record supports each of the points made by BAM in its initial comments. Specifically, the cap is not needed to promote any of the goals the NPRM identifies as possible reasons to maintain the rule: prevent market failure, foster competition, secure benefits of wireless service to all areas, and promote innovative technologies. Whatever spectrum scarcity concerns might have initially motivated the spectrum cap policy have since been eliminated by the abundance of CMRS spectrum and the Commission's ability to allocate even more. Continued enforcement of the cap may

actually impair the Commission's policies of promoting innovative services and encouraging wireless-to-landline competition. These points were buttressed by declarations from economists who concluded that the cap was indefensible economically and from others who explained why the cap could constrain deployment of new wireless services that would benefit the public.

The few comments that oppose repeal rest on conclusory assertions that lack factual support. They rely on the anachronistic refrain that what made sense in 1994, when there were few competitors and CMRS spectrum was very limited, must for that reason make sense today, although there are many competitors and far more spectrum. The Commission correctly observed, however, that it must evaluate the cap based on CMRS conditions today and tomorrow, not conditions that existed years ago.

Opponents of repeal fail to establish any nexus between the spectrum cap and CMRS competition, and thus fail to demonstrate why the cap is a prerequisite to sustaining that competition. Economic analysis shows that, to the contrary, its repeal will not undermine competition or risk market failure. Opponents of repeal also fail to confront the fact that any attempts to harm competition by spectrum hoarding could be blocked through the antitrust laws and through the licensing of additional CMRS spectrum. They do not attempt to show why the cap is needed to achieve any of the NPRM's other specified goals.

The record also does not support tinkering with the cap to preserve some limit on CMRS ownership. The very few parties that suggest this approach do not

show why it would not suffer from the same problems that afflict the current rule. Based on the record, the Commission has but one choice: repeal of the spectrum cap.

I. THE SPECTRUM CAP IS NOT NECESSARY TO SAFEGUARD CMRS COMPETITION.

Whether the Commission evaluates the record here under the criteria for forbearance under Section 10 of the Communications Act, or under the standard for repealing rules under the biennial review mandated by Section 11, the result is the same: the CMRS spectrum cap must be repealed. BAM's Comments (at 4-7) laid out the framework for CMRS regulation, which requires that any rule be not merely related to a specific policy goal, but necessary to achieve it, and that it be the least restrictive way to do so. No commenter disputed that this framework should apply.

While a few parties argue that the cap should be retained for the reasons that it was first adopted, these conclusory assertions do not recognize the evidence as to current CMRS competition and in any case fail to establish why the cap is necessary to achieve Commission goals. Most parties reach the same conclusion as BAM: the spectrum cap is not necessary to preserve competition, nor is it necessary to achieve the other goals identified by the NPRM.

First, the record demonstrates that CMRS enjoys meaningful competition now which will itself discipline attempts to foreclose competition. There are as many as six or more competitors licensed to serve each geographic area, prices to subscribers are falling, and innovative service and price plans are available to

consumers.[1] Economists Robert Crandall and Robert Gertner conclude, based on their review of data, that "The Commission's goal of competition has been achieved, and the spectrum cap is not necessary to ensure that such competition is preserved."[2] Other economists' expert opinions placed in the record agree.[3]

Second, even were CMRS not highly competitive, the cap is not a rational regulatory choice to achieve competition, let alone a necessary one, as the law requires. The comments point out that there is no relationship between the 45 MHz cap and promoting competition. In some areas, the spectrum limitation has the effect of actually foreclosing rather than promoting competition by preventing carriers from achieving economies of scale and other efficiencies.[4]

Third, the record demonstrates that retaining the cap is unnecessary to protect competition because other far less draconian mechanisms already exist to preclude anticompetitive hoarding of spectrum. Actions that aggregate spectrum are subject to antitrust review and both government and private remedies.[5] The

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[1] CTIA Comments at 4 (referring to Petition for Forbearance filed September 30, 1998); AirTouch Comments at 5-8; BellSouth Comments at 6-7; GTE Comments at 6-8.

[2] BAM Comments, Decl. at ¶ 59.

[3] GTE's Comments, for example, include a Declaration of J. Gregory Sidak and David J. Treece, and AT&T Wireless's Comments include a paper by Bruce M. Owen and Mark W. Frankena. These economists conclude that continued enforcement of the cap is not necessary to prevent loss of CMRS competition.

[4] AT&T Wireless Comments at 7-8; AirTouch Comments at 16-18.

[5] BellSouth Comments at 14-15; CTIA Comments at 6-7.

record supports a finding that these mechanisms protect the competitive goals of the spectrum cap and do so more narrowly, without the arbitrary limit of a cap.

Fourth, commenters show that there are other sources of competition that will undercut any attempt to "corner the market" through spectrum aggregation, and that the Commission's ability to allocate additional blocks of spectrum eliminates any incentive or opportunity to aggregate spectrum for anticompetitive purposes. For example, competition is developing from new wireless services not subject to the cap, such as LMDS and MSS.[6] CMRS carriers with nationwide footprints are emerging that will discourage attempts at foreclosing competition in one geographic area.[7] These new services and competitors, plus the Commission's ability to license additional spectrum where needed, undermine any plausible incentive or opportunity to aggregate spectrum as an anticompetitive tactic.

II. SUBSTANTIAL PUBLIC INTEREST BENEFITS WILL ACCRUE FROM REPEAL OF THE CAP.

Introduction of advanced technologies for consumers. Currently, most CMRS carriers use their spectrum to meet the demands of their mobile voice subscribers. Significant additional amounts of spectrum are needed to provide high-speed, high bandwidth technologies, and multimedia, Internet access, imaging and other "3G" services. Commenters echo BAM's showing that continuing the cap in force may

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[6] GTE Comments at 8-9; BAM Comments at 10-12.

[7] GTE Comments at 10.

deter or impede the introduction of high-speed data and other advanced wireless technologies, by starving carriers of the spectrum they need to respond to growing demand for these spectrum-intensive services.[8]

Competition in the wireless local loop. Commenters also explain how the cap can inhibit CMRS carriers from effectively competing with local exchange carriers. "As they become constrained by the spectrum limit, [CMRS carriers] are precluded from fully realizing their potential as true competitors to existing wireline local networks, because carriers are unlikely to degrade service to their mobile voice customers in order to provide alternative services, such as wireless local loop."[9] There is no question that the Commission and Congress desire to see competition in local telephone exchange markets; elimination of the cap can help CMRS carriers to provide that competition.

Improvements in rural service. The record provides no evidence that the cap is related to, let alone necessary to, providing new wireless services to rural areas or more wireless competition in those areas. In fact, as a large group of rural carriers explains, repealing the cap could enhance rural wireless services:

> Rural markets remain underserved by PCS and SMR services due to the significant expense in providing coverage across large geographic expanses. Given this significant expense, the most cost-effective means for providing PCS and SMR services to rural areas is for

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[8] GTE Comments at 20; AirTouch Comments at 16; BellSouth Comments at 10-11; BAM Comments at 22-27 and attached Declaration of Charles L. Jackson.

[9] BellSouth Comments at 8; see BAM Comments at 26-27; Western Wireless Comments at 9-10.

> existing rural cellular carriers to be able to offer all CMRS spectrum-based services to their customers. Given the economies of scale inherent in providing multiple services, once the necessary hardware is installed to provide one type of telecommunications service, additional services such as PCS and SMR can be offered for minimal additional expense.[10]

Without the spectrum cap, CMRS carriers would have more flexibility to develop the new services that would benefit rural as well as urban areas. Consumers would then enjoy access to new and a greater variety of services in these high-cost areas.[11]

Economies of scale. The record documents ways in which removing the cap can allow CMRS carriers to take advantage of significant economies of scale that reduce costs and lower prices.[12] For example, in order to use the same wireless network as voice services, advanced CMRS service offerings may require amounts of bandwidth in excess of 45 MHz.[13] Moreover, the cap inhibits the ability of carriers to serve larger markets, e.g., to provide a nationwide service area, and to serve rural markets efficiently.[14] Acquisition of a significant amount of spectrum is necessary to provide services over these larger areas in a cost-effective manner.[15]

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[10] Rural Telecommunications Group (RTG) Comments at 5; BAM Comments at 18-21 (spectrum constraints may discourage deployment of new services).

[11] RTG Comments at 6; AirTouch Comments at 17-18; BellSouth Comments at 13-14.

[12] AT&T Wireless Comments at 6-7; Western Wireless Comments at 8-9.

[13] GTE Comments at 26.

[14] Id.; RTG Comments at 5-6.

[15] GTE Comments at 26; RTG Comments at 5; SBC Wireless Inc. Comments at 9-10.

III. PARTIES OPPOSING REPEAL SUPPLY NO EVIDENCE THAT JUSTIFIES RETAINING THE CAP.

The few commenters that want the cap retained focus on the original rationale for the cap and fail to examine today's market. They ignore the fact that there are numerous mechanisms available to ensure that CMRS competition is not foreclosed. They supply no data or economic evidence to support their claims, and rely on conclusory assertions rather than hard facts. Those assertions, as shown below, are flawed. They fail to provide the Commission with what it requested – specific facts and cogent analysis that could justify the cap.

Looking Backward. The commenters that oppose removal of the spectrum cap look backward to a very different market situation, rather than to current and future competitive conditions. They recite that the rule is needed to achieve the goal of avoiding excess concentration of new spectrum in the hands of few parties.[16] Rather than provide current economic evidence, however, these parties recite the original basis for the rule as if this were enough to keep it. But the cap was adopted at a time when there were only two broadband CMRS providers using a total of 50 MHz in each geographic area, and it was designed to ensure that many new licenses would be awarded to new entrants. That goal was achieved. Now, more than four years later, the Commission has awarded almost all the CMRS licenses subject to

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[16] DiGiph Comments at 2-4; MCI WorldCom Comments at 2-4; Northcoast Comments at 3-4; PCIA Comments at 7-10; Sprint PCS Comments at 7-8; Telecommunications Resellers Ass'n (TRA) Comments at 3-5; Telephone and Data Systems (TDS) Comments at 4.

the cap, and as a result, there are six or more CMRS licensees in most geographic areas. In addition, the amount of spectrum already licensed is more than triple what it was when the cap was adopted, and even more spectrum can be allocated.

The spectrum cap is now an anachronism. Court decisions (as well as Sections 10 and 11 of the Act) mandate that, when the premise for a Commission rule no longer exists, the rule cannot be maintained.[17] Commenters fail to supply economic data or other information that demonstrates why the cap is necessary or even appropriate in today's wireless markets.

Ignoring More Tailored Protections. Commenters opposing repeal of the cap ignore the protections afforded by existing antitrust remedies and the Commission's power to license more CMRS spectrum. The Justice Department and the Federal Trade Commission are well-equipped to detect anticompetitive conduct by CMRS providers and to initiate enforcement actions to stop such conduct. Private parties also have the ability to stop anticompetitive conduct under the antitrust laws. Even if CMRS providers start to acquire more spectrum for anticompetitive reasons despite the absence of any rational reason for doing so, there are significant amounts of spectrum suitable for CMRS services which the Commission can make available for new CMRS licensees and thus thwart any attempt at foreclosure.[18] These mechanisms eliminate any incentive to foreclose competition by acquiring

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[17] BAM Comments at 14-15.

[18] BAM Comments at 10-12; CTIA Comments at 6-7; BellSouth Comments at 14-15.

spectrum, and can block any such effort if it is attempted. Ignoring these remedies, as supporters of the cap do, does not make them disappear. Their availability undercuts any argument for keeping the cap.

Failing to Show Why Removing the Cap Would Harm Competition. Proponents of the cap supply no facts or economic analysis to support their claim that the cap protects CMRS competition. The claim is also incorrect. Drs. Crandall and Gertner state in their attached Reply Declaration, "There is simply no reason to believe that rational CMRS operators would attempt to accumulate spectrum to the extent necessary to foreclose competition." Reply Decl. at ¶ 5. They base this conclusion on several findings: Any such attempt would drive license prices higher, making foreclosure financially unattractive. Buildout rules preclude warehousing spectrum for anticompetitive purposes. And, even if a carrier attempted to acquire enough spectrum to suppress competition, antitrust remedies would be available, and the Commission could increase the supply of spectrum as needed, thereby defeating this strategy. Reply Decl. at ¶¶ 5-6.

Proponents of the cap confuse competition with the number of competitors. Drs. Crandall and Gertner show that the entry of only one PCS carrier has lowered CMRS prices, but that the entry of additional providers has not had this impact. Reply Decl. at ¶ 8. This suggests that even some consolidation would not erase the competitive gains that have been achieved. In addition, they note that it is unlikely that the number of competitors in any geographic area would be reduced below four if the cap were removed, given the investment by many CMRS providers in building

national "footprints" to offer their subscribers seamless mobile service. They correctly observe that AT&T Wireless, Sprint PCS, BAM, Nextel and others need to retain their presence in individual geographic areas to achieve this national strategy. Thus even if a CMRS competitor assembled, for example, 70 MHz in one area, it would still have to compete against multiple national competitors. Reply Decl. at ¶¶ 8, 13. Foreclosure by purchasing spectrum would be an irrational business strategy, but even were it attempted it would not suppress competition:

> We find that any attempts to foreclose competition by amassing spectrum would be expensive, time consuming and ultimately fruitless. Competition has already driven down prices in markets of all sizes despite the relatively small subscriber shares of entrants. Removing the spectrum cap will not disadvantage these entrants or drive them out of business. In particular, claims that removal of the cap could lead to a duopoly are simply not credible given the large number of well financed, determined competitors seeking to build national footprints.

Reply Decl. at ¶ 2.

Claiming Market "Concentration" as a Reason for Keeping the Cap. Sprint attempts to support the cap by analyzing the concentration of market shares for CMRS in various markets. Sprint claims that Herfindahl-Hirshman Indices ("HHI") in certain licensed areas exceed the 1900 HHI which the Commission deemed as the upper bound of unconcentrated markets. But this has no bearing on the validity of the cap.

The data Sprint cites do not establish the premise that these areas are "concentrated." Drs. Crandall and Gertner state that use of subscriber share data is

inappropriate.[19] The cap has served its purpose to get spectrum into the hands of multiple licensees. "As these firms build their networks, the number of competitive alternatives will increase rapidly; therefore, the appropriate measure of concentration for the purposes of competition policy is the reciprocal of the number of firms that are able to offer service, not current, ephemeral shares of susbscribers." Reply Decl. at ¶ 11. Based on that measure, Drs. Crandall and Gertner demonstrated in their initial Declaration (at ¶¶ 31-36) that the wireless industry is not highly concentrated. They now analyze pricing data in the same cities included in the statement of Sprint's economist, and find that "a direct analysis of prices in these areas strongly suggests that CMRS entrants have had a substantial effect on prices despite their relatively low subscriber shares." Reply Decl. at ¶ 12. Despite these substantial price reductions, concentration as measured by Sprint's economist did not change. The data confirm that the use of subscriber shares is not a valid way to measure concentration.

Even if Sprint's claims of concentration were accepted, however, they would not justify the cap, because Sprint never makes the necessary connection between maintaining the cap and more competition. Asserting that certain areas do not yet have "enough" competition does not prove why regulatory restraints on spectrum are in any way related to this situation, let alone why they are necessary to change

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[19] Even Sprint's economist conceded, "In general, where competitors have entered markets recently and are expanding their share, such as many wireless telephony markets, market share data will tend to understate the future competitive significance of recent entrants." Statement of Dr. John Hayes at 5.

it. To the contrary, Sprint's own assertion of inadequate competition, despite the existence of the cap for over four years, belies its theory that the cap is somehow needed to achieve competition.

A few other PCS commenters claim that CMRS competition is insufficient in smaller areas to warrant removing the cap.[20] But they fail to supply any data. Drs. Crandall and Gertner state that this claim "is inconsistent with the economic evidence." Reply Decl. at ¶ 15. Analyzing price changes in smaller cellular service areas, MSA Nos. 76-100, they find that new competition in these smaller areas has substantially reduced cellular prices, by an average of 22.5 percent for 30 minutes of use per month (MOU), 26.1 percent for 100 MOU, and 9.3 percent for 300 MOU. Id.

Even if the claim of inadequate competition were factually correct, these commenters never explain why it warrants keeping the rule. If there are fewer competitors in smaller areas during the time that the spectrum cap has been in place, this is no basis to keep the cap; to the contrary it suggests that removing the cap will not harm competition.[21] Drs. Crandall and Gertner conclude: "The later build-out of PCS systems in rural BTAs cannot be ascribed to the Commission's spectrum policy. Nor would removal of the spectrum cap reduce competition in these rural areas." Reply Decl. at ¶ 17.

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[20] PCIA Comments at 7; D&E Communications Comments at 5.

[21] To the contrary, by encouraging carriers to deploy advanced services that will benefit all areas, repeal may actually encourage provision of CMRS to rural areas. BAM Comments at 21.

Avoiding New Competition. The few parties supporting the spectrum cap reveal their self-interest in blocking competitors from acquiring more spectrum by complaining that this may erode their own position.[22] But, as Drs. Crandall and Gertner show, this fear is groundless. The spectrum cap is unrelated to these parties' ability to compete, and competing providers have no rational way to use spectrum aggregation as a means to suppress competition. Reply Decl. at ¶¶ 9, 18. It is also not the Commission's job to protect any particular carrier.[23] If these parties are not successful it will be from competition, not because of a lack of it.

PCS commenters appear to want the cap retained so that cellular rivals will be unable to acquire more spectrum, but they ignore the fact that the cap actually distorts access to spectrum. PCS carriers may acquire 45 MHz and devote it exclusively to digital services and new technologies, but cellular carriers remain obligated to provide analog service on cellular spectrum, and must squeeze digital services on remaining frequencies. The cap thus can encumber cellular carriers' plans to deploy spectrum-intensive data services and other advanced technologies.[24] Drs. Crandall and Gertner observe that it is for this reason that PCS commenters "are arguing strenuously to keep the cap in order to handicap their cellular rivals."

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[22] D&E Communications Comments at 6.

[23] E.g., Hawaiian Telephone Co. v. FCC, 418 F.2d 771 (D.C. Cir. 1974) (the Act's public interest standard cannot be equated with helping specific competitors).

[24] SBC Wireless Comments at 10.

Reply Decl. at ¶ 21. The Commission should not preserve rules that skew the marketplace in this manner.[25]

Contradicting Prior Positions. PCIA's opposition to removing the cap is startling, given its vigorous advocacy (before now) for removal of many other CMRS rules because the CMRS market was, in PCIA's own word, "robustly" competitive. PCIA argues here that competition "is still in its early stages," that PCS carriers are "only beginning" to compete with the "still dominant" cellular carriers, and that the market "is still concentrated." Contrast these statements with PCIA's proclamation just five months ago:

> By any reasonable measure, CMRS is the most robustly competitive segment of the U.S. telecommunications marketplace. In every market in the country, at least nine companies have or soon will have licenses and strong economic incentives to serve all segments of the community. In every market in the country, prices for services are plummeting. In every market in the country, competition is extending its beneficial reach to all consumers – individuals as well as businesses.[26]

PCIA has repeatedly championed the success of competition from PCS carriers as the very reason why the Commission should repeal numerous rules and

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[25] In its Comments (at 28-31), BAM also explained why the spectrum cap violates principles of regulatory symmetry set forth in the Act and Commission Rules, because it constrains only three types of CMRS providers, but not other competing CMRS or fixed wireless providers. No party supporting the cap defended this asymmetry, and it is alone grounds to repeal the cap.

[26] PCIA Petition for Reconsideration, Petition for Forbearance for Broadband Personal Communications Services, WT Docket No. 98-100, filed Sept. 10, 1998, at iii.

forbear from enforcing many provisions of the Communications Act. Now, however, it protests that those same PCS entrants are so far from being full competitors that they need to be protected from incumbent carriers by economic regulation – the very type of rule that it previously castigated. Its position today that competition is not sufficient in smaller markets flatly conflicts its earlier statements of robust competition in "every market."

PCIA does not even acknowledge in its spectrum cap comments that it has taken irreconcilable positions. It simply ignores its zealous advocacy in the past for repealing rules, based on claims about the existence of the very competition that it now asserts does not exist. This is not only a change in legal argument; it reverses previous statements of fact about the industry PCIA claims to represent. This unexplained reversal precludes any reliance on PCIA's new position.

Other Arguments. Several parties claim that the Commission must wait to eliminate the cap until new CMRS competitors have built out their systems so that competition among CMRS providers "matures."[27] But "maturity" is an illusory goal which a cap would do little to promote. Development of a wireless system depends upon many factors, including financial backing and market response. A cap does not force deployment of new systems faster or make one system or another more financially viable; those depend on demand.

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[27] MCI WorldCom Comments at 4; PCIA Comments at 6-8; TDS Comments at 4.

PCIA claims that the spectrum cap encourages technological innovation, but the only example it offers is that cellular carriers have allegedly been forced by the cap to develop digital services.[28] PCIA cites no facts to support this claim, and it is incorrect. Reply Decl. at ¶ 20. BAM deployed digital service to provide enhanced privacy and protection against cellular fraud, to provide higher-quality service and to respond in the marketplace to all-digital PCS competition; it would have done so even had there been no cap at all. Companies must respond to their competitors' offerings of innovative services if they are to succeed, regardless of whether any ownership limit is in force.

Ultimately, even if one assumes these arguments are true, they do not support retention of the cap. The NPRM in this proceeding correctly recognizes that imposition of regulations on CMRS requires more than a showing that a rule would achieve particular goals; the rule must also be the minimum necessary to accomplish those goals. NPRM at ¶ 5. There is nothing in the record that comes close to making that showing.

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[28] PCIA Comments at 12.

CONCLUSION

The record compels one simple action: The CMRS spectrum cap should be repealed. Doing so will not undermine any of the Commission's goals for wireless services, while continuing to enforce the cap will only constrain achievement of those goals.

Respectfully submitted,

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Reply Declaration of Robert W. Crandall and Robert H. Gertner

1. We have been asked by Bell Atlantic Mobile ("Bell Atlantic") to offer our evaluation of the comments in support of the continuation of the Federal Communication Commission's ("the Commission") 45 MHz limit on a firm's licenses to use CMRS spectrum (the "spectrum cap") filed by several parties in this proceeding. In particular, we have been asked to evaluate the contentions of three parties -- the Personal Communications Industry Association ("PCIA"), D&E Communications, Inc. ("D&E"), and Sprint PCS -- that competition in CMRS would be reduced substantially if the spectrum cap is removed by the Commission at this time. This contention is at odds with the economic analysis that we provided in a declaration filed with Bell Atlantic's initial comments in this proceeding. Our curriculum vitae are appended to this original declaration.

2. We find that any attempts to foreclose competition by amassing spectrum would be expensive, time consuming and ultimately fruitless. Competition has already driven down prices in markets of all sizes despite the relatively small subscriber shares of entrants. Removing the spectrum cap will not disadvantage these entrants or drive them out of business. In particular,

claims that removal of the cap could lead to a duopoly are simply not credible given the large number of well financed, determined competitors seeking to build national footprints.

The Spectrum Cap Is Not Required to Assure that CMRS Markets Remain Competitive

3. Each of the above commenters claims, without any evidence, that the advance of competition in CMRS has been due in large part to the existence of the spectrum cap. Whether the cap prevented bidders from monopolizing any regional market for CMRS cannot be known with certainty because, obviously, the Commission did not conduct a controlled experiment in which some markets were subject to a cap while others were not. We conclude that such attempts at monopolization are unlikely to have materialized for at least two reasons. First, the Commission could readily defeat any such attempt to foreclose competition by simply making clear its intention to auction more spectrum in the future if the auctions result in concentrated ownership of the two cellular bands, the PCS A block, the PCS B block, the PCS C block, the PCS D block, the PCS E block, the PCS F block, and the ESMR frequencies.[1] The six PCS bands were auctioned for more than $20 billion. Had no limits been placed on a firm's ability to bid for such spectrum in any market, the auctions would surely have resulted in even greater total auction realizations. The cost of such a foreclosure strategy by any one firm would therefore have been very high and would have resulted in little economic gain if the Commission simply responded by fulfilling its public-interest responsibility through the auctioning of even more

[1] See our initial Declaration, paragraphs 45-48. The accumulation of the PCS C and F blocks would have been difficult for even the most rapacious would-be monopolists because they could not have qualified as "designated entities."

spectrum.

4. Second, any attempt to foreclose competition through the amassing of large amounts of spectrum that would not have been used by the winning bidders for some time would surely have invited the scrutiny of the Department of Justice's Antitrust Division. Attempts to monopolize the CMRS market through the warehousing of spectrum could have been countered by the Department of Justice through Section 2 of the Sherman Act. In addition, the Commission's build-out requirements would thwart any such attempted warehousing.

5. The Commission's policy in auctioning over 120 MHz of new PCS spectrum is not now at issue because these auctions have already closed. The 30 MHz blocks of PCS spectrum are held by entities that do not have attributable cellular licenses in their respective geographic areas. The Commission's decision to retain or abandon the spectrum cap must be based on its prospective effects, given the dispersed licensing of PCS spectrum that has already occurred. There is simply no reason to believe that rational CMRS operators would attempt to accumulate spectrum to the extent necessary to foreclose competition. We assert this for three reasons, the first two of which are identical to those advanced in the foregoing two paragraphs. The Commission could easily negate any such attempt by simply auctioning new spectrum for CMRS uses, and the Department of Justice could respond if the Commission did not perform adequately.

6. In addition, any attempt to buy up spectrum for the purpose of foreclosure would be time consuming and extremely costly even if it could be successful. Each purchase would

require a public filing, thereby drawing attention to it. The result would be that clear signals would be provided to the remaining licensees that the value of their spectrum is increasing and that they could hold out for higher and higher prices. Buildout requirements would further complicate matters. Firms would either have to spend the funds to build out their licenses, or they would risk losing the licenses and angering regulators. The final result would be that the current licensees would appropriate a large share of the prospective monopoly profits that derive from this hypothetical attempt at foreclosure. Why would any rational firm attempt to pursue such a foreclosure strategy in this environment?

7. The primary concern of opposing commenters with removal of the spectrum cap seems to be a fear that they will be forced out of business. However, no mechanism is ever articulated as to how this would occur. D&E comes the closest when it argues that "[m]ergers and acquisitions will give already formidable companies with large amounts of spectrum and existing customers, even more spectrum and an additional established customer base in developing markets" (D&E, at 9).

8. Even if one or two firms aggressively pursued expansion by accumulating more than 45 MHz in a large number of markets, competition would not likely be harmed. In our original declaration, we demonstrated that the entry of a third CMRS participant in a market drives cellular rates down significantly, but that the entry of the fourth, fifth, or sixth market participant has had no further price-depressing effect. We are aware of no contrary evidence on this point, but even if there were such evidence, we must stress that it is unlikely that the number of potential participants in each geographic market could be reduced to less than four even if the spectrum cap were removed.[2] First, the spectrum is currently licensed. Any existing firm would

[2] Many of the cellular and PCS licensees are large, national firms or desire to develop into

have to be acquired or persuaded to sell. PCIA's concern that removing the spectrum cap "would conceivably allow one or two companies to operate all cellular systems and all PCS systems in the same market" is simply not credible (PCIA, at 8). Companies like AT&T Wireless, Sprint PCS, Nextel, Bell Atlantic and others wish to offer national or near-national footprints and likely will not abandon markets simply because another competitor can now offer services using 70 MHz (or more) of spectrum. And even in the unlikely event that three participants were to invest the extraordinary amounts required to purchase all of the 180 MHz of spectrum now allocated to CMRS in each market, the Commission could prevent any market foreclosure by allocating more spectrum to CMRS.

9. D&E also seems to imply that large market shares and financial resources might allow some companies to drive others out of business. However, the PCS entrants have always faced two incumbents with large subscriber market shares and substantial financial resources. The only way in which removing the spectrum cap might affect this situation would be by either reducing the total number of competitors (which should be beneficial or neutral to D&E and its compatriots, including the competitors which sold their spectrum and appropriated expected monopoly rents), or by enabling the company with more spectrum to offer innovative new services.

The Effects of Competition Already are Present in the CMRS Industry

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national wireless companies with large, national footprints. For this reason, licensees such as Airtouch-Vodafone, AT&T Wireless, Sprint PCS, SBC, Nextel, Bell Atlantic, U S WEST, and BellSouth are not likely to sell their licenses and quietly disappear.

10. Several commenters claim that the spectrum cap should be retained because competition from PCS firms is not yet "meaningful" in many parts of the country. For example, Sprint PCS's expert Dr. John Hayes claims that "high concentration levels . . . suggest that cellular carriers may be able to exercise market power in many CMRS markets" (Sprint PCS, Attachment A, at 6). Similarly, the PCIA claims that "[t]he spectrum cap remains necessary because, although there may be competitors, there has not yet been sufficient development of the new competitors to enable them to survive if consolidation runs rampant" (PCIA, at 7). However, a direct examination of prices for CMRS services shows that competition from new providers has had a significant impact.

11. Dr. Hayes presents a table that shows that HHIs based on subscriber shares in the top 25 MSAs and PMSAs were high and relatively constant between January and July 1998. As we pointed out in our original declaration, it is difficult to measure market concentration in a market that has only recently been opened to competition and in which capacity is being added rapidly.[3] Dr. Hayes concedes that "[i]n general, where competitors have entered markets recently and are expanding their share, such as many wireless telephony markets, market share data will tend to understate the future competitive significance of recent entrants" (Hayes, at 5). Many licensees have not built out their systems, but in most MSAs there are at least eight firms with licenses to at least 10 MHz of CMRS (or ESMR) spectrum, an amount that is sufficient to offer strong competition in traditional wireless voice/narrowband data services. As these firms build their networks, the number of competitive alternatives will increase rapidly; therefore, the appropriate measure of concentration for the purposes of competition policy is the reciprocal of the number of firms that are able to offer service, not current, ephemeral shares of subscribers. Most of these firms will soon be offering service; we doubt that any of the successful bidders for

[3] See our original Declaration at paragraphs 31-36.

the PCS spectrum have expended their scarce resources on this spectrum just to remove it from useful service.

12. In fact, a direct analysis of prices in these areas strongly suggests that CMRS entrants have had a substantial effect on prices despite their relatively low subscriber shares. We have collected price information for September 1997 and March 1998 for the same areas analyzed by Dr. Hayes.[4] Table 1 repeats the same information as reported in Dr. Hayes's Table 1 and adds the average change in price for 300 minutes of use per month ("MOU/month").[5] Our Table 1 shows that prices fell in each of these areas, typically by substantial amounts, even though Dr. Hayes' measure of concentration did not change substantially over a similar time period.

13. The PCIA claims that the "reduction in per minute charges have been largely the result of efforts by the largest cellular carriers who are also PCS licensees in building out their PCS systems or by other cellular operators attempting to convert their cellular systems from analog to digital service..." (PCIA, at 8). No empirical evidence is provided to support such a claim. In our original declaration, we demonstrated that the entry of a third CMRS participant in a market drives cellular rates down significantly, but that the entry of the fourth, fifth, or sixth market participant has had no further price-depressing effect. We are aware of no contrary evidence on this point, but even if there were such evidence, we must stress that it is unlikely that the number of potential participants in each geographic area could be reduced to less than four

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4 Dr. Hayes uses information from MSAs and PMSAs. The price information we rely on is reported on an MSA basis, so in some cases we match MSA price information to PMSA concentration (e.g., we match price information for the Los Angeles MSA to the Los Angeles, Orange County and Riverside PMSAs).

5 We take price information from Paul Kagan Associates, Inc., "Competitive Rates in Wireless Telecom, May '98."

even if the spectrum cap were removed and no additional spectrum were allocated. AT&T Wireless, Nextel and Sprint PCS all offer national service and are unlikely to be forced out of business. Other companies are also attempting to offer national service, and there are many well-funded firms, including Airtouch, SBC, Bell Atlantic, U S WEST and BellSouth, that are unlikely to disappear simply because the spectrum cap is removed.

14. As noted, competition from a third CMRS carrier has a significant effect on prices, but -- by definition -- this third carrier could not be one of the existing cellular carriers in the same market. Given the activity by Sprint and Nextel in building out their systems, these two firms are major sources of this new competition, not the existing cellular carriers. Of course, companies with cellular properties in other markets may also contribute to this competition, but the PCIA should not so readily denigrate the salutary competitive effects created by its own PCS members.

15. D&E claims that "[o]nly the largest, most urban areas have achieved any significant levels of competition" (D&E, at 5). This claim, echoed by other commenters including PCIA, also is inconsistent with the economic evidence. Table 2 reports the average change in price for 300 MOU/month in the 25 smallest MSAs for which we have information.[6] In almost every case, prices fell, often substantially.[7] Two of the areas cited by D&E -- Harrisburg and York, Pennsylvania -- are included in our Table 2. Although D&E claims that the "new entrants that are operational in these markets are merely fledgling competitors," the evidence indicates that these entrants have had a substantial effect on the prices charged by the incumbent cellular providers. In particular, cellular prices in these areas fell between September

[6] Kagan summarizes price information for the top 100 MSAs. Table 2 is based on MSAs 76-100.

[7] Results are similar for other levels of use (i.e., 30, 100, 500, 750 or 1000 MOU/month).

1997 and March 1998 by an average of 22.5 percent for 30 MOU/month; 26.1 percent for 100 MOU/month; and 9.3 percent for 300 MOU/month.

The Spectrum Cap Will Not Increase Competition in Rural Areas

16. Sprint PCS and D&E raise the specter of reduced competition in rural areas if the spectrum cap is lifted. They note that in a large number of BTAs there is still no operational PCS or digital SMR system. However, they fail to provide an analysis that shows that lifting the spectrum cap would retard competition in these areas. Bidders have obtained PCS and ESMR licenses for these areas, but they are much slower to build out their systems in these areas than in the more dense, urban areas because the rural systems are likely to be less profitable.

17. The later build-out of PCS systems in rural BTAs cannot be ascribed to the Commission's spectrum policy. Nor would removal of the spectrum cap reduce competition in these rural areas. Were a CMRS carrier to seek to accumulate more than 45 MHz in certain markets after the lifting of the spectrum cap, it would likely not be initially in the rural areas. But even if such an unlikely response occurred and the number of potential competitors were reduced to four or even three, why would D&E be opposed, given that its licenses are in these smaller markets? Any reduction in competition would redound to its advantage, not to its detriment.

18. D&E asserts that it fears that a removal of the spectrum cap "would permit the aggregation of spectrum by firmly entrenched incumbents with the tremendous financial resources and incentive to put new entrants out of business" (D&E, at 6). Operating in smaller markets in which it typically has only three wireless competitors, D&E clearly desires to prevent its cellular rivals from accumulating more than 45 MHz of spectrum. But how would such

"spectrum aggregation" provide the incumbent cellular carriers with the ability to "put new entrants, e.g., D&E, out of business?" Surely, the cellular carriers do not need more than 45 MHz to wage a foolish price war in Lancaster or Reading, PA, which could not be successful anyway. For such predation to be profitable, it must eliminate the possibility that future competition will spring up when prices are subsequently raised by the predator. Otherwise, the predator cannot recoup its losses from the price war. It is simply not credible that competitors such as AT&T Wireless, Sprint PCS, Nextel, BellSouth, U S WEST and Omnipoint can be forced out of business. But cellular companies surely must know that future spectrum allocations by the Commission would defeat such a strategy by allowing new competitors to rise as Phoenix from the ashes of the price war. Indeed, a predatory price-cutting strategy would only benefit consumers, not the predators.

The Need for Additional Spectrum

19. The PCIA, D&E, and Sprint PCS comments are correct in asserting that current services do not require CMRS carriers to reach even the current 45 MHz cap. However, the telecommunications industry is changing rapidly, and CMRS providers are developing plans to provide competitive high-speed services and to launch a competitive assault on wireline carriers. To develop such plans, these CMRS carriers must be assured that they may be able to exceed the current 45 MHz cap when necessary.[8]

[8] See the Declaration of Charles Jackson, filed with Bell Atlantic's Comments in this proceeding, for a discussion of the likely increase in spectrum requirements for wireless carriers.

20. Sprint PCS argues that the spectrum cap has spurred technological innovations to allow more efficient use of spectrum, but it is economically inefficient to use scarce resources to innovate around regulator-imposed constraints. Resources are more efficiently devoted to overcoming real economic bottlenecks rather than artificially imposed regulatory bottlenecks. However, it is not obvious that these innovations were caused by the spectrum cap. Digital technology, for instance, offers many advantages besides more efficient use of spectrum, such as better protecting conversations from eavesdropping; guarding against cellular fraud; and providing better voice quality.

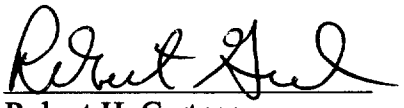
21. This competitive necessity to accumulate more than 45 MHz is likely to be most acute for those CMRS carriers that have an analog cellular customer base that requires substantial spectrum unless these customers are to be migrated to digital service at a considerable cost to the incumbent. These cellular carriers will operate at a considerable disadvantage relative to PCS carriers that can accumulate up to 45 MHz of spectrum that is unencumbered by analog service requirements. Indeed, it is for this reason that Sprint PCS, D&E, and PCIA, representing PCS carriers, are arguing strenuously to keep the cap in order to handicap their cellular rivals, such as Bell Atlantic or AT&T and to limit these cellular licensees' ability to compete in the future. Therefore, while the spectrum cap is not needed to protect competition, it should be removed to allow all wireless competitors the ability to compete freely in the rapidly changing telecommunications marketplace.

I, Robert Crandall, hereby declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Robert W. Crandall

Dated: February 10, 1999

I, Robert Gertner, hereby declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.



Robert H. Gertner

Dated: February 10, 1999

Table 1

HHIs as Calculated by Dr. Hayes and Percentage Changes in Monthly Bills

MSA or PMSA	Dr. Hayes' HHI January 1998	Dr. Hayes' HHI July 1998	Pct. Change in Monthly Bills, 300 MOU/Month Sept. 1997-Mar. 1998
Los Angeles	3,857	4,044	-34.3%
New York	4,092	3,873	-15.6
Chicago	4,119	3,862	-17.1
Philadelphia	3,919	3,981	-13.0
Washington, DC	3,202	3,237	-1.0
Detroit	4,194	4,209	-9.9
Houston	2,799	3,170	-31.3
Atlanta	4,329	4,803	-27.3
Boston	4,001	3,774	-5.6
Dallas	3,463	3,229	-16.3
Riverside	3,965	4,067	-34.3
Minneapolis	4,030	3,687	-11.1
Phoenix	3,353	3,282	-43.7
Nassau	4,425	4,041	-15.6
San Diego	3,198	3,416	-13.0
Orange County	4,124	3,825	-34.3
St. Louis	4,111	4,019	-4.9
Baltimore	3,383	3,334	-1.0
Pittsburgh	4,487	4,664	-6.3
Seattle	4,113	3,699	-13.0
Cleveland	3,269	3,086	-14.0
Oakland	2,996	3,214	-34.1
Tampa	3,763	3,207	-22.4
Miami	3,998	4,534	-17.1
Newark	4,074	4,673	-15.6

Source: Comments of Sprint PCS, Attachment A, Table 1.
Paul Kagan Associates, Inc., "Competitive Rates in Wireless Telecom, May '98."

Table 2

MSAs 76 - 100

Percentage Change in Monthly Bill
Between September 1997 and March 1998

MSA	Percentage Change in Monthly Bill 300 MOU/Month
New Bedford, MA	-1.6%
Tucson, AZ	-27.3
Lansing, MI	-0.5
Knoxville, TN	-30.0
Baton Rouge, LA	-8.2
El Paso, TX	-31.3
Tacoma, WA	-7.0
Mobile, AL	-34.8
Harrisburg, PA	-9.3
Johnson City, TN	-19.1
Albuquerque, NM	-28.5
Canton, OH	-25.2
Chattanooga, TN	-39.2
Wichita, KS	-15.4
Charleston, SC	-0.4
San Juan, PR	0.0
Little Rock, AR	-19.4
Las Vegas, NV	-25.9
Saginaw/Bay/Midland, MI	0.0
Columbia, SC	-2.2
Fort Wayne, IN	-15.1
Bakersfield, CA	-23.7
Davenport, IA	-8.7
York, PA	-9.3
Shreveport, LA	4.6

Source: Paul Kagan Associates, Inc., "Competitive Rates in Wireless Telecom, May '98."